## **AMENDMENTS TO THE CLAIMS:**

Please cancel without prejudice claims 1 and 9 and amend claims 2, 10 and 15 as follows.

This listing of claims will replace all prior versions, and listings, of claims in the application:

- 1. (cancelled).
- 2. (currently amended) A fibre-optic surveillance system including:

a fibre-optic sensor array according to claim-1 comprising:

at least two fibre-optic point sensors; and

a distributed fibre-optic sensor linking said at least two fibre-optic point sensors, wherein said sensor array provides an array output of sensed data from said at least two fibre-optic point sensors and said distributed fibre-optic sensor; and further including

an <u>interferometric</u> interrogation system, said interrogation system, responsive to said sensed data output from said array indicative of a force applied to at least one of said sensors, for establishing a position at which said force is applied.

- 3. (original) A fibre-optic surveillance system according to claim 2 wherein the fibre-optic sensor array is connected to the interrogation system by a fibre-optic cable.
- 4. (original) A fibre-optic surveillance system according to claim 2 wherein the fibre-optic sensor array is connected to the interrogation system by a transducer and a wire cable.

HILL et al.
Appl. No. 10/573,671
June 29, 2010

- 5. (previously presented) A fibre-optic surveillance system according to claim 2 wherein each of the fibre-optic point sensors comprises optical fibre wound into a flexural disc.
- 6. (previously presented) A fibre-optic surveillance system according to claim 2 wherein the fibre-optic point sensors are geophones.
- 7. (previously presented) A fibre-optic surveillance system according to claim 2 wherein each fibre-optic point sensor comprises a fibre-optic accelerometer.
- 8. (previously presented) A fibre-optic surveillance system according to claim 2 wherein the distributed fibre-optic sensor comprises optical fibre packages within a cable to measure one of pressure on the cable and bend of the cable.
  - 9. (cancelled).
- 10. (currently amended) The system of claim 92 wherein the interferometric interrogation system comprises a reflectometric interferometric interrogation system.
- 11. (original) The system of claim 10 wherein the reflectometric interferometric interrogation system comprises a pulsed reflectometric interferometric interrogation system.
- 12. (original) The system of claim 11 wherein the pulsed reflectometric interferometric interrogation system employs time-division multiplexing to distinguish individual sensors.

- 13. (original) The system of claim 2 wherein the interrogation system comprises a Rayleigh-backscatter interrogation system.
- 14. (original) The system of claim 13 wherein the Rayleigh-backscatter interrogation system comprises a pulsed Rayleigh-backscatter interrogation system.
- 15. (currently amended) A method of establishing the position at which an object moving on a surface crosses a path of fixed length, wherein said method comprises the steps of:
- (i) positioning athe fibre-optic sensor array of a surveillance systemaccording to claim 1 adjacent said path, said surveillance system including:

a fibre-optic sensor array comprising:

at least two fibre-optic point sensors; and

a distributed fibre-optic sensor linking said at least two fibre-optic point sensors, wherein said sensor array provides an array output of sensed data from said at least two fibre-optic point sensors and said distributed fibre-optic sensor; and

an interferometric interrogation system, responsive to said sensed data output from said array indicative of a force applied to at least one of said sensors, for establishing a position at which said force is applied; and

(ii) analysing optical signals received from the sensor array <u>using the interferometric</u> interrogation system of said surveillance system to establish the position of the object crossing the path.

. HILL et al.
Appl. No. 10/573,671
June 29, 2010

16. (previously presented) A method according to claim 15, wherein the optical signals are analysed by measuring the delay between signals received from adjacent said at least two fibre-optic point sensors along the array and combining these signals with a signal from the distributed fibre-optic array linking said at least two fibre-optic point sensors to locate and confirm said position.